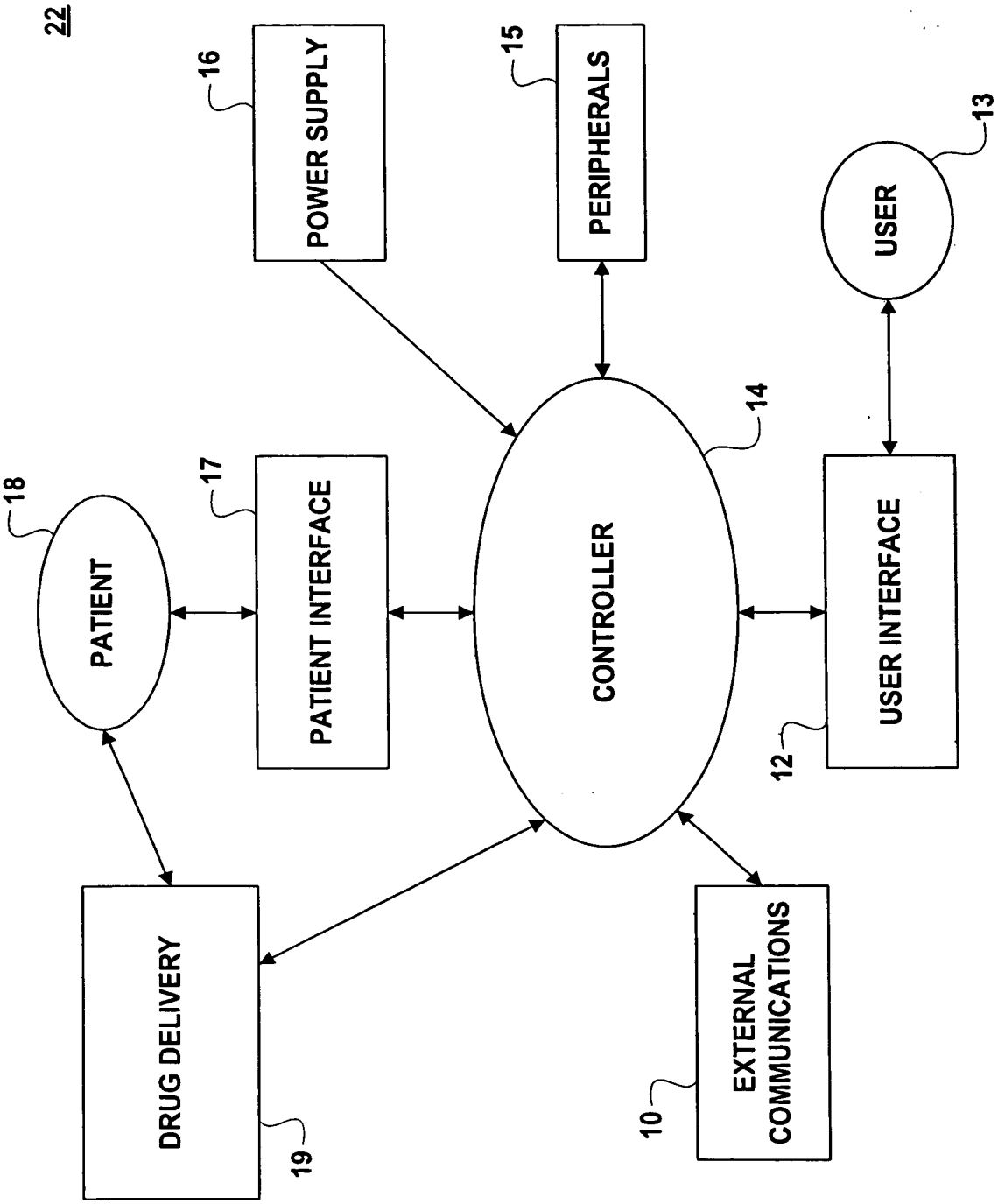

22
POWER SUPPLY
16
PERIPHERALS
15
USER
13
PATIENT
18
PATIENT INTERFACE
17
CONTROLLER
14
USER INTERFACE
12
DRUG DELIVERY
19
EXTERNAL COMMUNICATIONS
10

FIG. 1

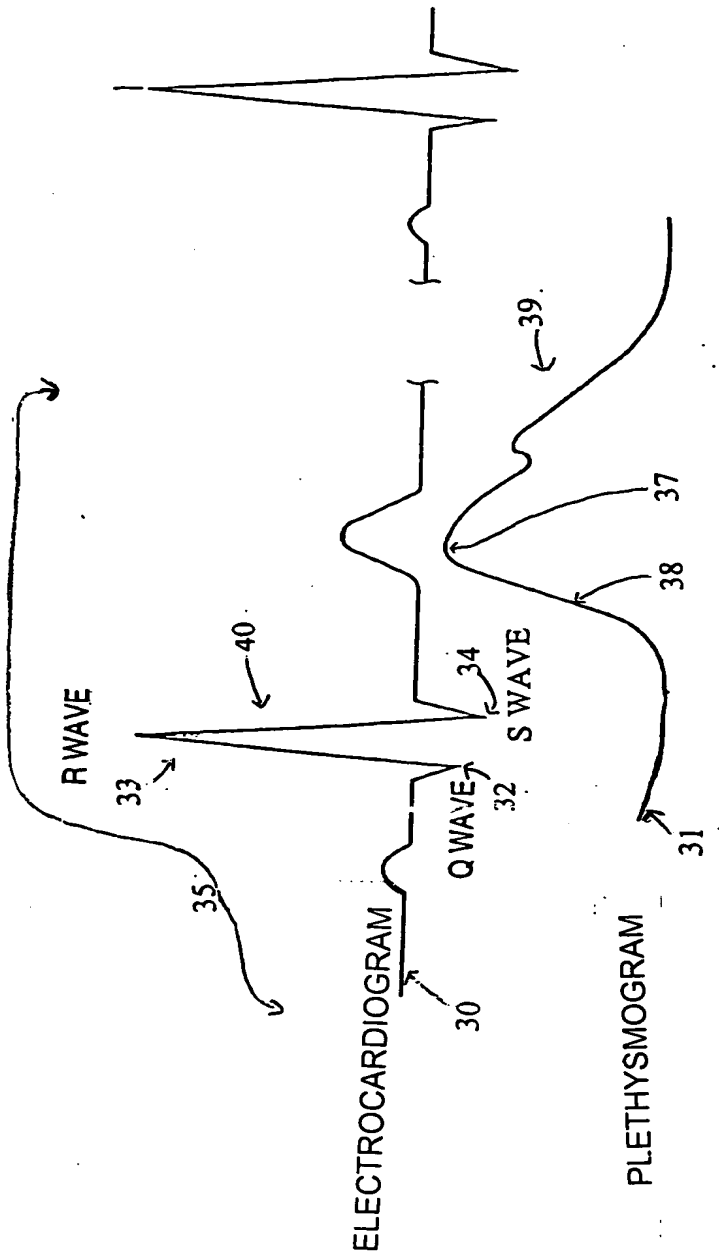

R WAVE
33
40
34
S WAVE
Q WAVE
32
35
39
37
38
31
ELECTROCARDIOGRAM
30
PLETHYSMOGRAM

FIG. 2

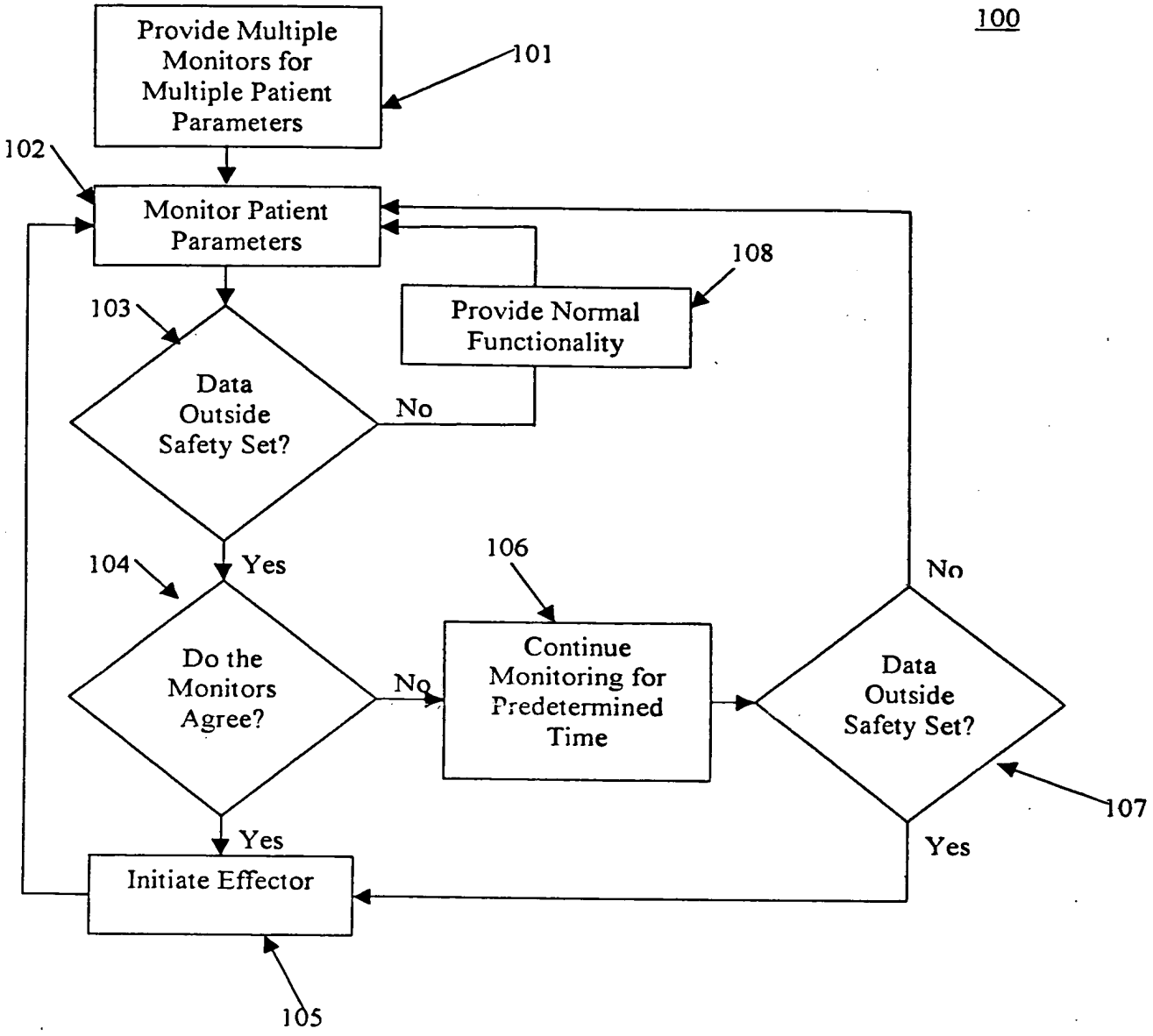

100
Provide Multiple Monitors for Multiple Patient Parameters
101
102
Monitor Patient Parameters
108
Provide Normal Functionality
103
Data Outside Safety Set?
No
Yes
104
106
No
Do the Monitors Agree?
No
Continue Monitoring for Predetermined Time
Data Outside Safety Set?
107
Yes
Yes
Initiate Effector
105

FIGURE 3

FIG. 4A

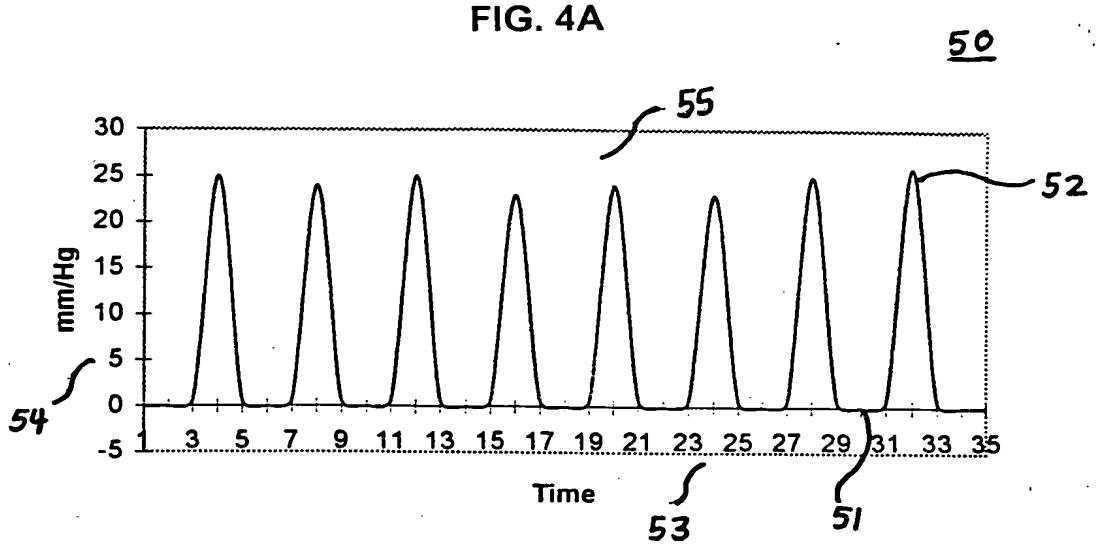

50
55
52
30
25
20
15
10
5
0
-5
mm/Hg
54
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
Time
53
51

FIG. 4B

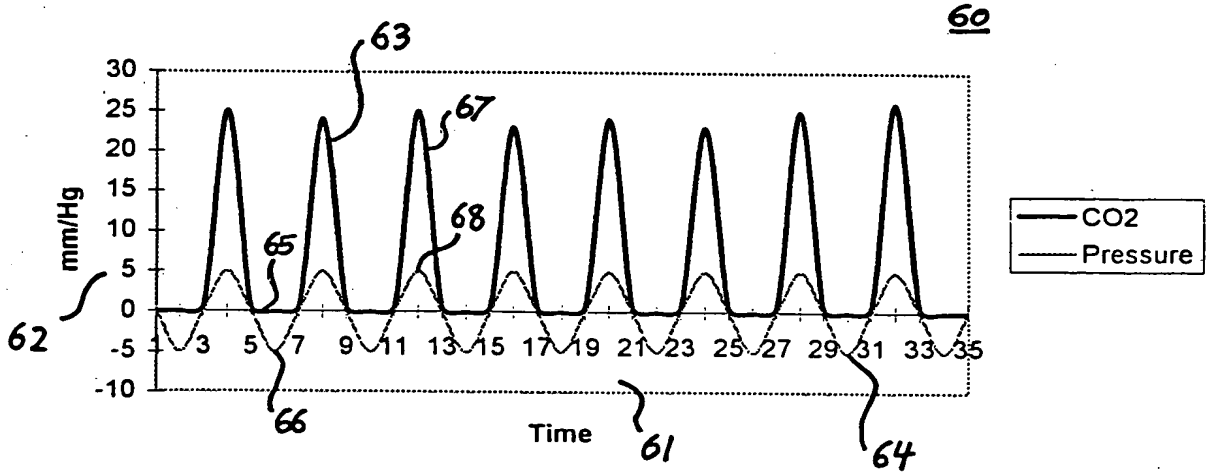

60
63
67
68
65
66
64
61
62
30
25
20
15
10
5
0
-5
-10
mm/Hg
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
Time
CO2
Pressure

FIG. 5A

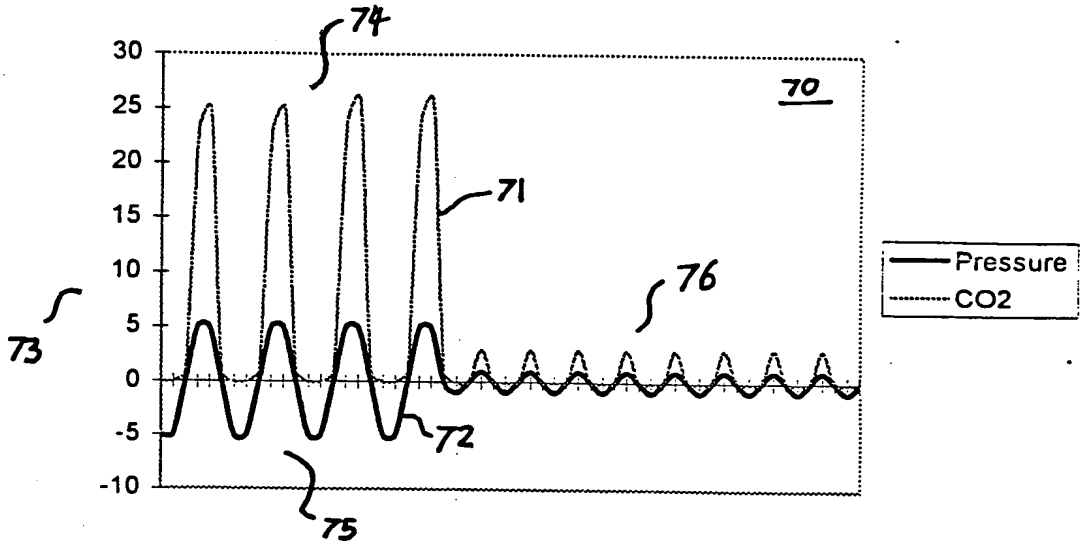
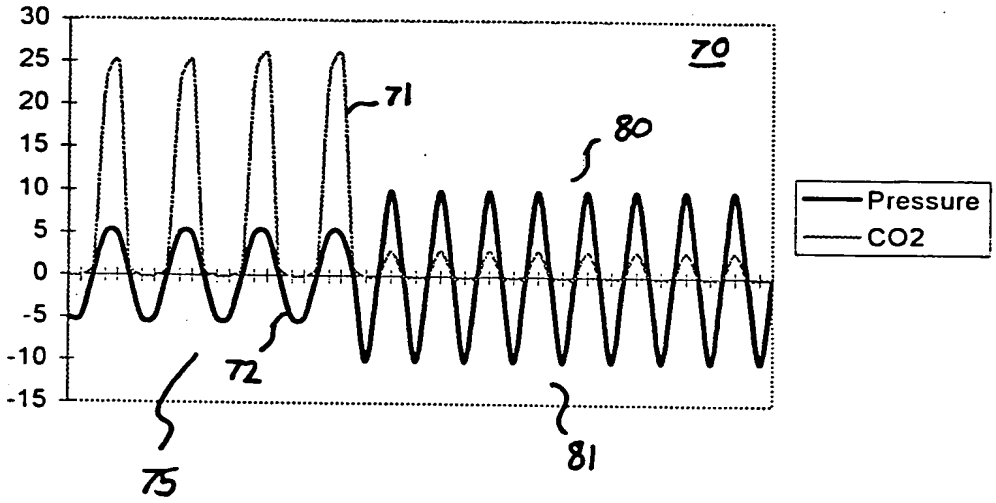

74
70
71
76
73
72
75
30
25
20
15
10
5
0
-5
-10
Pressure
CO2

FIG. 5B


70
71
80
72
75
81
30
25
20
15
10
5
0
-5
-10
-15
Pressure
CO2

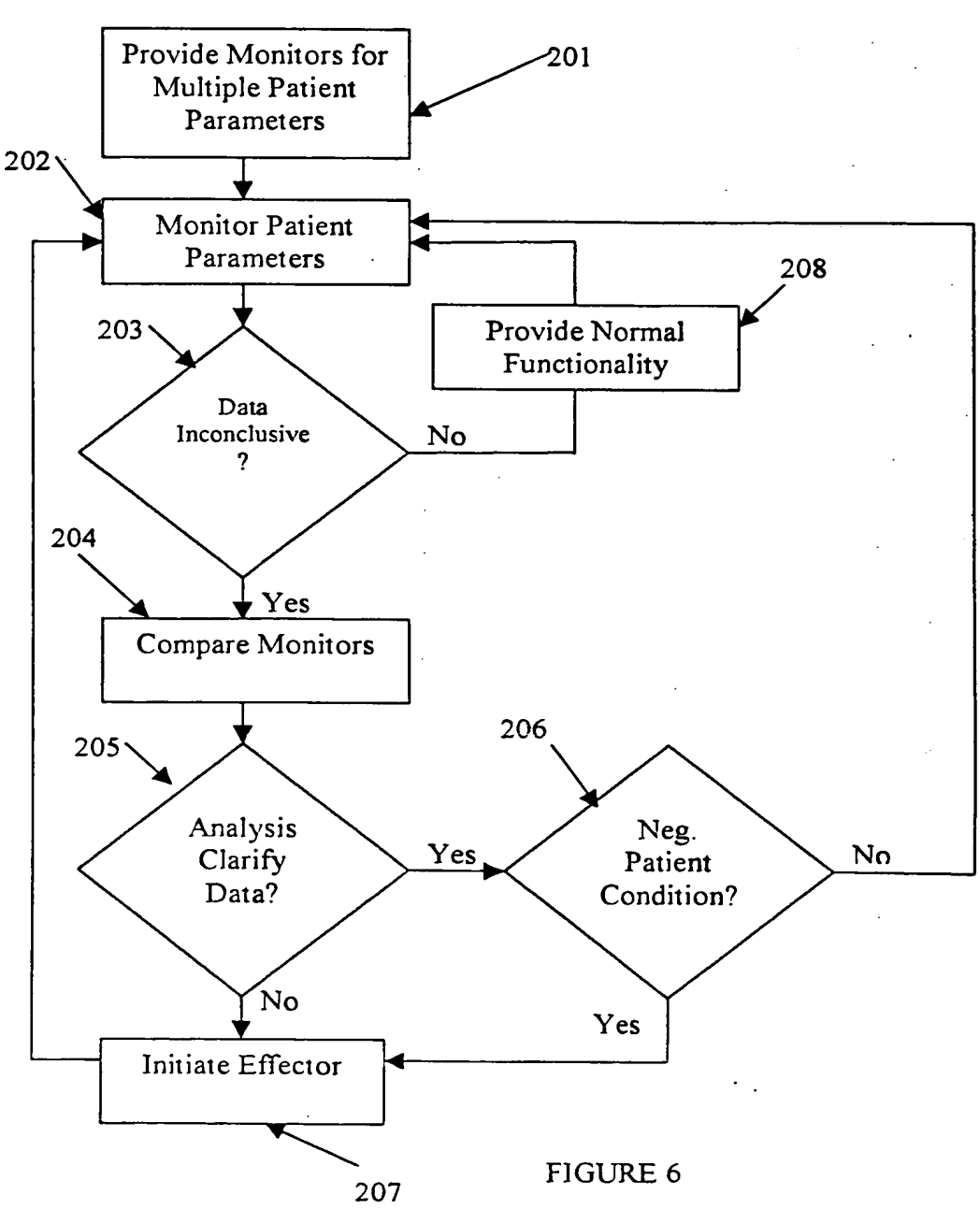

200
Provide Monitors for Multiple Patient Parameters
201
202
Monitor Patient Parameters
208
Provide Normal Functionality
203
Data Inconclusive ?
No
204
Yes
Compare Monitors
205
206
Analysis Clarify Data?
Yes
Neg. Patient Condition?
No
No
Yes
Initiate Effector
207

FIGURE 6

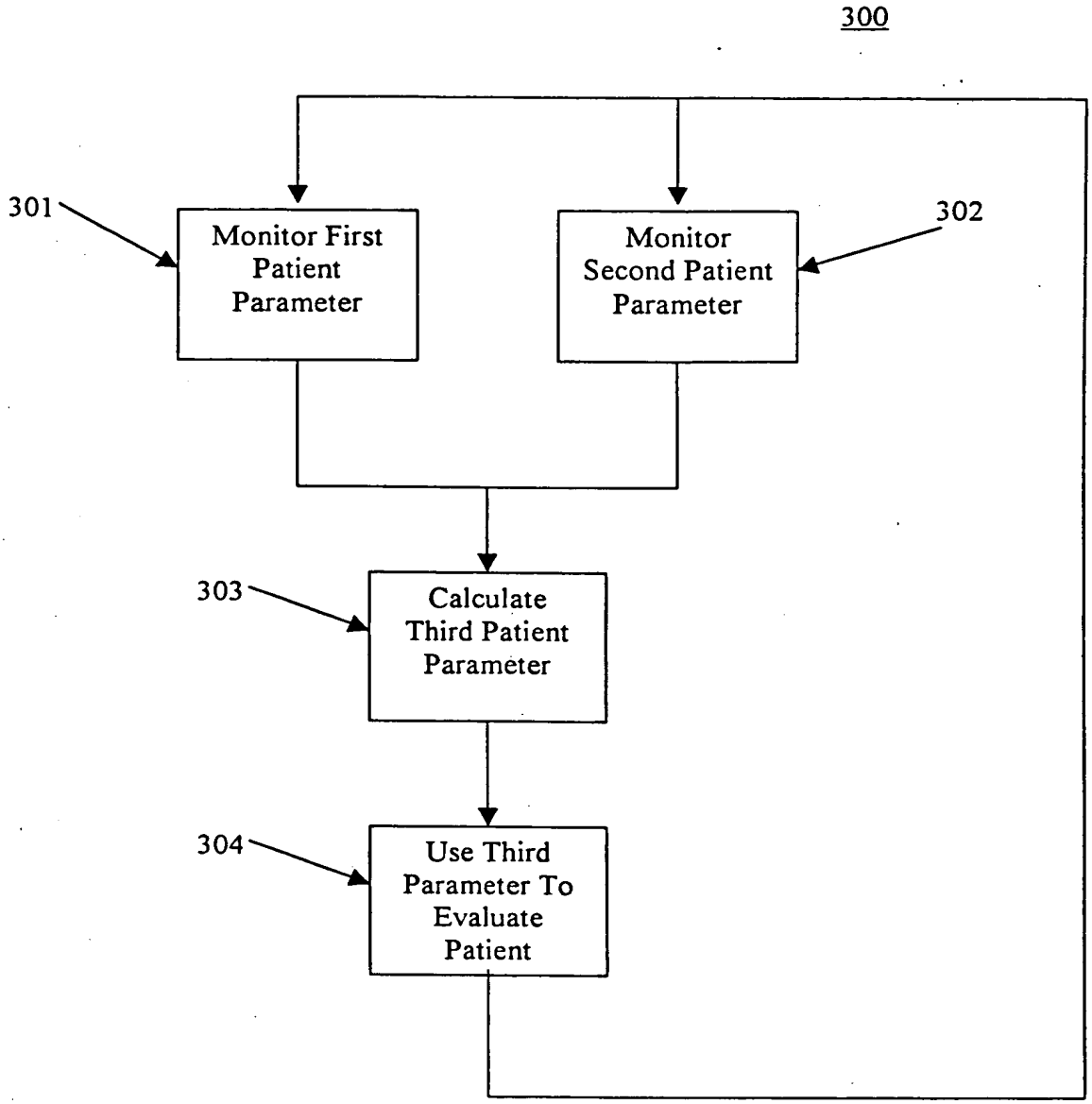

300
301
Monitor First Patient Parameter
302
Monitor Second Patient Parameter
303
Calculate Third Patient Parameter
304
Use Third Parameter To Evaluate Patient

FIG. 7